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A SUMATRA WOMAN EFFORTLESSLY BALANCES A STRANGE HEAD-BURDEN

Homeward bound after a shopping spree in the market at Fort de Kock, this Menangkabau wife carries a covered basket topped by a quacking duck and a peering hen. Her smile need not be so shy, for her people are matriarchal, tracing descent through the female side. She is the social equal of her husband, and marriage duties are equally divided. The Menangkabaus are a parent race of all the present-day Malays. They began to adopt Mohammedanism in the 16th century. They inhabit west central Sumatra (Bulletin No. 3).

Maynard Owen Williams

GEOGRAPHIC SCHOOL BULLETIN

HOW TEACHERS MAY OBTAIN THE BULLETINS

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Kyushu, Japan's South Island, Was a Small Ruhr

(This is the third story in a series on the Japanese home islands. Honshu, Japan's main island, was described in the October 1, 1945, issue of the GEOGRAPHIC SCHOOL BULLETINS; *Hokkaido, Japan's north island, was in the October 8 issue.)*

KYUSHU, second most important of the Japanese home islands, was the second to be occupied by United States troops. This southernmost large island of Japan attained great wartime importance due to its position and production.

In the northern area of the island Japan's prewar heavy industry showed the greatest advancement. The 19-mile coastal belt between the cities of Moji and Yawata was so closely packed with metal working industries that it normally turned out about one-third of the pig iron, and up to one-half of the steel in Japan proper. And from the near-by Chikuho coal field—most valuable in all Japan—came more than one-half of the nation's total coal production. Several smaller Kyushu fields contributed to the total output of this little Ruhr of the East. Copper, gold, and silver were also mined in commercial quantities.

Irregular Coast Line Encloses Wooded Plateau, Volcanic Peaks

Lying on a general north and south axis, Kyushu—whose name means "nine provinces"—is about 210 miles long, and about 145 miles wide at its greatest breadth. Its area and population double that of New Jersey. Before the war it counted more than 8,000,000 persons. Eight of its cities had more than 135,000 dwellers. The island is separated from Honshu by the narrow Strait of Shimonoseki. Tokyo lies about 485 miles northeast of Kyushu's northern shores.

Two main features distinguish the interior: a high plateau, crusted with lava and volcanic ash; and a rumpled area of mile-high mountain masses in the south. Volcanic peaks, some active, break the sweep of the northern plateau, and hot springs are numerous. Several rivers rise in the central highlands, and find outlets on the east and west coasts.

Kyushu's climate is variable, and its winters are somewhat severe for the latitude. Snowfall six or seven days a year is not unusual in the south. Below-freezing temperatures have been recorded for 64 days a year in the central western section. Island summers are usually hot and humid. Rainfall is fairly heavy, reaching from 80 to 100 inches a year in the southern valleys. Hurricanes roar over the island occasionally in late summer and fall.

In normal times islanders mine coal and other minerals, work in porcelain and other factories, and fish in the neighboring seas. Farmers cultivate narrow coastal tracts, the bottom land of valleys, and the ash-strewn uplands. They grow rice, wheat, millet, sugar cane, beans, sweet potatoes, fruits, and tea. Logging and charcoal-making are among the chief forest industries.

Southern Area Lags Behind Expanding North

Principal west and north coast industrial cities, listed clockwise, are: atom-bombed Nagasaki, population 252,600 (before the bomb struck), long Japan's only foreign-trade port and formerly winter haven of the Russian fleet; Sasebo, a former fishing village that became a naval station and a city with about 206,000 residents; Fukuoka, coal-exporting and oil-importing port, population 323,000; Yawata, site of the huge government-owned Imperial Iron and Steel Works, a city of 261,000 people; and Moji, industrial center and northern terminus of the

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Harald P. Lechenperg

MILLING PEDESTRIANS ON AN ASMARA STREET MINGLE RELIGIONS AND CULTURES FROM ARABIAN, ITALIAN, AND NATIVE SOURCES

This modernized capital of Eritrea, Italy's oldest colony, had a prewar majority of Italian citizens. Natives included Coptic Christians, Mohammedans, and a few pagans. Plaster-covered, tin-roofed stone houses, in place of native "tukuls," or huts, reflect Italy's colonizing efforts. Bits of European dress are sprinkled among the motley crowd. Asmara, inland from the torrid Red Sea at an elevation of 7,765 feet, has a cool climate and adequate rainfall (Bulletin No. 2).

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Italy's Recently Acquired Empire Grew Under Mussolini

WHAT to do with Italy's colonies was a subject recently considered by the Council of Foreign Ministers in London. Mussolini's overseas domain was built around territories, mostly in Africa, which were Italy's before the rise of Fascism: Libia, Eritrea, Italian Somaliland, and the Aegean Islands. To these the Fascist dictator added Ethiopia (1936) and Albania (1939).

The three pre-Fascist African colonies covered an area as large as the part of the United States east of the Mississippi River. Combined, they were more than seven times the size of peninsular Italy, but counted less than one-seventeenth of Italy's population. All three were heavily subsidized by the Italian government before the war.

Hard Times in South Italy Started Emigration

The conquest of Ethiopia in effect joined Eritrea and Somaliland into one block of land which became known as Italian East Africa. Ethiopia added to the older colonies an area larger than Texas and Oklahoma combined. Albania, across the Strait of Otranto from Italy's heel, increased Rome's empire by half the area of West Virginia. The 14 Italian Islands of the Aegean, off the coast of Turkey, add up to Rhode Island's size.

Italy 60 years ago planned through colonization to provide overseas room for an expanding population. In 1886 an economic slump in southern Italy, due largely to the banning of Italian wine by France, started a flow of Italians to America and Africa. Manpower became one of Italy's great exports. Nevertheless the kingdom's population had increased more than 50 per cent by 1939.

Italy's African territories grew from the acquisition of land around the Bay of Assab, on the Red Sea coast, in 1870. This first foothold was purchased by a private Italian shipping company from the local sultan, with funds provided by the Italian government. The move by France into Tunisia in 1881-82 is believed to have further spurred Italy to colonizing activity. In 1885 Italian forces landed at the Red Sea port of Massaua, northwest along the coast from Assab—an occupation which was to give Italy the mountainous colony of Eritrea (illustration, inside cover). Before the war Eritrea was exporting over 100,000 tons of salt a year. Other exports included livestock products, cotton, and pearls.

Not long after the landing at Massaua, Italy entered into a commercial treaty with the Sultan of Zanzibar, and later acquired a protectorate over the Somali coast at Africa's easternmost tip. At first the colony was exploited by a private company. It came under direct government control forty years ago.

Libia Was Won from Turkish Empire

Central Somaliland is largely desert. The adjoining cotton country south of the Giuba (Juba) River was acquired by treaty with England in 1924; and additional cattle runs to the north became part of the colony after successful skirmishes with the independent sultanates of that section. In fact, the colony was never completely pacified, and Italian administration was hampered by raiding, looting, and tribal warfare. Somaliland produced cotton, ivory, gum, resin, and tropical fruits. Cattle-raising was a leading occupation.

The acquisition of Libia, southward across the Mediterranean from Italy, followed an ultimatum to Turkey and the landing of Italian troops at Tripoli in

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island's railroads, prewar population 139,000. Shipyards, marine facilities, and related plants in Nagasaki owned by the powerful Mitsubishi interests were rated among Japan's biggest industries. (Latest prewar population figures used.)

The inland business center of Kumamoto had about 210,000 inhabitants. About 20 miles northwest of the city, on Shimabara Bay, is the industrial town of Omuta (177,000), developed by the Mitsui family. A synthetic petroleum plant using coal from near-by mines was one of the latest additions.

Southern Kyushu's metropolis is Kagoshima on Kagoshima Bay. Peacetime population was about 190,250. Business with near-by farmers far exceeded the port's foreign trade. The island's development has been regionized by the inland mountain barrier. Southern Kyushu lags far behind the northern industrial districts.

Neither have east coast towns had any great importance industrially or commercially. Beppu, known for its hot springs (illustration, below), lies in the heart of a region called the Japanese Riviera. Oita, with 77,000 residents, is the place where Portuguese adventurers are believed to have landed in 1543, and to have given the Japanese their first sight of firearms.

From earliest times Kyushu has been a steppingstone for foreign conquest and the introduction of culture. Ancestors of the modern Japanese race supposedly first landed on the southern island. A third-century Japanese expedition for the conquest of Korea (Chosen) had its base on Kyushu. In the 13th century a wave of Mongol invasion broke over the island. Christianity for Japan was first introduced on Kyushu by Jesuits who accompanied the 16th-century Portuguese adventurers. Until 1854 and 1855, when the rest of Japan was opened to trade with the United States, Great Britain, and Russia, Kyushu was the only meeting ground of Japanese and foreign merchants.

Note: Kyushu is shown on the National Geographic Society's Map of Japan and Adjacent Regions. A price list of maps may be obtained from the Society's headquarters, Washington 6, D. C.

See also "Japan and the Pacific," in the *National Geographic Magazine* for April, 1944; and "Unknown Japan," August, 1942*; and "Targets in Japan: Kyushu's Cities of Steel and Ships," in the GEOGRAPHIC SCHOOL BULLETINS, October 9, 1944. *(Issues marked with an asterisk are included in a special list of Magazines available to teachers in packets of ten for $1.00.)*

Willard Price

AT BEPPU, KYUSHU'S KARLSBAD, THE JAPANESE BOIL EGGS IN HOT SPRINGS

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Netherlands Indies Contain Resources Vital to World Economy

AN EXAMPLE of the troubles which nations with empires may face was reported from Sydney, Australia, where Javanese on a Netherlands steamer refused to sail to their homeland with a load of munitions which they feared might be used against their own people. Other reports have indicated that some Javanese want complete independence from the Netherlands.

A glance at Java and the other islands of the East Indies reveals a rich storehouse which no claimant would lightly give up. The prewar Netherlands Indies supplied nine-tenths of the world's natural quinine, one-third of its rubber, one-fourth of its tin, and important proportions of its spices, sugar, coffee, petroleum, tobacco, and vegetable oils. Three and one-half years of Japanese occupation convincingly demonstrated to the rest of the world the area's economic importance.

Island Empire Dwarfs Mother Country

The islands' near-monopoly of quinine traces to the cultivation of the cinchona tree, which the Dutch brought to Java from tropical South America. It was long the most effective antidote for malaria. World-wide war took thousands of American fighting men to the tropics, creating a military need for quinine that brought a government call to druggists for quinine surpluses, and stimulated the search by science for satisfactory substitutes.

The big archipelago counts five large and thousands of smaller islands forming a dense screen in the ocean between southeastern Asia (French Indochina, Siam, and Malaya) and Australia. It stretches for 3,600 miles along the Equator, approximately halfway around the world from the United States. Sumatra (illustration, cover), tin-and-petroleum-rich western anchor of the group, extends its tip farther west than Rangoon, Burma. The eastern limit of the Netherlands Indies reaches the heart of wild New Guinea, along a north-south boundary that lies farther east than Tokyo.

Including the western half of New Guinea and taking in three-fourths of Borneo and all Sumatra, Celebes, and Java, the tropical empire of the Netherlands covers a land area 55 times that of the mother country. The Netherlands Indies are nearly three times as large as Texas; and the Dutch-owned land of the five big islands named is nine-tenths of the total.

With a land area equivalent to one-fourth that of the United States, the group in 1940 counted fully one-half as much population. Java, fifth-largest of the islands but easily first in agriculture and industry, was chiefly responsible for this ratio. It is one of the most thickly populated areas in the world.

Borneo's Wilderness Contrasts to Java's Rich Farms

No more than a match for New York State in extent, Java in 1940 counted three times as many inhabitants as the state of which teeming New York City is a part. More than 40,000,000 Javanese lived on the island's 51,000 square miles —an average of at least 800 people to the square mile. Java's metropolis, and the Netherlands Indies capital, Batavia (illustration, next page), has 600,000 inhabitants.

Fertile volcanic soil, extensive plains easily cultivated and well watered by rainfall and by irrigation from mountain streams make possible the all-year agriculture that has supported Java's brown-skinned millions. The growth of popula-

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1911. In the war with Turkey that resulted, Italy's success was partly due to Turkey's Balkan difficulties at the time. During the First World War the Arabs, unfriendly to the new overlords, practically regained control of this African coastal area, and reconquest by Italy was not fully won until about 1932.

Italy spent large sums before the war in an effort to settle Italian colonies on Libian oases; but they were unable to produce food enough for their own needs, and Italy was compelled to furnish flour, rice, sugar, and other necessities for the support of the colonists. The 90,000 Italian inhabitants clung mostly to the coastal cities and towns. Libia's products included hides, dates, tobacco, olives, and almonds.

Italy has now disavowed all claims to Ethiopia, from which the Fascists were pushed by British and Ethiopian armies in 1941. Rome has also renounced her interest in Rhodes (illustration, below) and the other Aegean Islands. These strategic points in the eastern Mediterranean, largely populated by Greeks, were taken from Turkey in the war of 1912, but are now claimed by Greece.

Albania has reverted to its former independent status. Eritrea has been claimed by Ethiopia, Egypt, and the Soviet Union. The latter two countries have likewise expressed interest in Cirenaica, the eastern coast of Libia. France wants portions of the desert interior of Libia. International trusteeships, or trusteeships under a certain Allied power, or complete independence were other plans considered, according to reports, by the foreign ministers at London.

Note: Italy's prewar colonies may be located on the Society's Map of Africa.

Bulletin No. 2, October 15, 1945.

Governo delle Isole Egee

ROCKY, HISTORIC, STRATEGIC RHODES WAS ROME'S EASTERN ISLAND BASTION

On this Italian-built modern highway between the city of Rhodes and its airport, donkeys and pedestrians usually outnumber motorists. Two shapely agaves rise beside the road. This largest of the Italian Islands of the Aegean was acquired by Italy in 1912.

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Seventeen-Year Locust Is a Cicada Stuck with a Nickname

IT'S THE periodic cicada to the scientist, but to the average American this popeyed bug with gauzy wings will probably continue to be the "17-year locust." Long and incorrect use of the name locust (which properly refers to the grasshopper) appears to have fastened it permanently on the cicada.

The periodic cicada has a fourfold distinction—it lives only in the United States, spends most of its life underground, has probably the longest life span of any insect, and splits the air with one of the most complex "voices" in all nature. The male makes a loud shrill "scissors-grinder" sound by vibrating membranes which are stretched like drums on each side of its abdominal cavity. The female is silent.

Early in the summer of 1945, the periodic cicada appeared in eastern gardens and woodlands. It follows a definite and changeless life pattern, beginning in a tree, continuing for 13 or 17 years underground, and ending in a tree.

Cicada Housing Projects Sometimes Cover Acres

The female cicada places her eggs in gashes made in the branches of trees with her sawlike ovipositor. In a few weeks the grubs push out of their woody nests and tumble to the ground. Then begins their long subterranean life. Each grub digs a home in the earth. Once dug in, it feeds on the sap from the roots of trees and plants, and the humus in the surrounding soil. It rarely changes its location unless the food source fails.

Where the ground is damp grubs sometimes build clay cones 2 to 6 inches high above their burrows, possibly to prevent drowning. Another explanation of these cities of tiny huts—some covering acres of ground—is that the young cicadas come to the surface ahead of schedule and build waiting-rooms in which to stay until the time is up.

When instinct warns the cicada that it has served its time in the earth, it emerges (illustration, next page) and climbs the nearest tree. It is then about an inch long and looks rather like a miniature crayfish. It casts off its old garments, expands its wings, and changes color—all in a few hours. The "locust shells" left on trees after this transformation are well known to many children.

Cicadas live only 30 to 40 days after they emerge from the earth. The female dies after laying 400 to 600 eggs. The full-grown insects eat little compared to the meals of their grub years. The habits and behavior of the misnamed bug have been studied by scientists for more than two hundred years. Unusually large onslaughts of the insects can be predicted accurately by entomologists. Although these "big locust years" are viewed with alarm, the damage done by the cicada is not nearly as great as is generally supposed. It is caused chiefly by the female in cutting slits for the egg nests. As many as 20 nests have been found in a single twig; 50 nests in a line have been cut in a single limb. These slits cause twigs and branches to break, and leave bad scars.

Lives East of the Rockies

The sluggish cicada is an easy prey for its more alert foes such as digger wasps and domestic fowls. Robber insects eat its eggs. In towns, cicadas are attacked by English sparrows. The clearing of woodlands has also checked their increase.

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tion has gradually necessitated increasing the cultivation of rice for native consumption, reducing the land available for profitable sugar, rubber, quinine, and other export crops.

In contrast to Java, the jungle marshes and mountains of Netherlands Borneo are undeveloped, holding one-sixteenth of Java's population on four and one-half times Java's land.

In 1602 the Netherlands created their East India Company, which gradually conquered the tropical islands of the Far Eastern empire and managed them until the company was dissolved in 1798. From 1816 on, Netherlands government officials supervised East Indian affairs. They successfully reduced tribal wars and brought seeds and seedlings from distant lands to start the coffee, tobacco, rubber, quinine, and other crops which became profitable.

Perhaps first among Netherlands Indies crops to approach prewar proportions in the postwar era will be copra, the dried meats of coconuts, to relieve the world shortage of fats and oils. The islands ranked second only to the Philippines in copra and coconut oil.

Production of rubber and spices on a small scale can be resumed fairly promptly according to reports. Only surveys by commissions already appointed, however, can determine how much the important export crops of the islands have been set back by the Japanese occupation.

Note: The Netherlands Indies are shown on the Society's Map of Southeast Asia.

See also "Keeping House in Borneo," in the *National Geographic Magazine* for September, 1945; "Seafarers of South Celebes," January, 1945; "Treasure Islands of Australasia," June, 1942*; "Java Assignment," January, 1942; "Unknown New Guinea," March, 1941; and "Through Java in Pursuit of Color," September, 1929*.

Bulletin No. 3, October 15, 1945.

Maynard Owen Williams

OLD CANALS IN BATAVIA ARE LAUNDRY TUBS FOR BATIK SARONGS

Every day the small-statured Javanese women gather on the canal walls. The waterways were dug by early Dutch settlers, who first lived in this low-lying part of the Netherlands Indies capital. When malaria drove Europeans to higher ground, Malays and Chinese took over old Batavia. The unique batik cloth of the Indies is made by a dyeing process in which wax covers portions of the fabric not to be dyed.

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Geo-Graphic Brevities

ASIATIC MUNG BEAN ADOPTED ON AMERICAN MENUS

THE mung bean, a visitor from the Orient, is being welcomed to the family circle of American-grown food crops. The tender sprouts of this unfamiliar vegetable are used in chop suey and other popular Oriental dishes which war shortages brought to home dinner tables as substitutes for chops and steaks.

The mung bean is not actually a newcomer to the United States. But until World War II it was not cultivated here commercially. It was raised on a few hundred experimental acres, chiefly in Oklahoma, as a hopeful but not highly successful competitor of the soybean and cowpea for livestock feed. Its merits as a substitute for alfalfa and as poultry feed were known.

Used in ancient times as a source of food for man and beast in China, India, and Japan, the mung bean reached American shores at least a century ago. A member of the pea family, its botanical name is *Phaseolus aureus*.

Many varieties have been grown, among them the Chickasaw pea, the Oregon pea, and the Chop Suey bean. As a source of sprouts for human consumption, however, the home-grown mung bean was virtually ignored until the war cut off its importation from China. In 1942 demand for sprouts increased because of war-made shortages of meats. More people ate in restaurants. Housewives bought take-home meals from Oriental restaurants, or lined up in grocery stores for chop suey and chow mein (which included mung bean sprouts) in canned and frozen form.

To supply this new demand, Oklahoma farmers planted 75,000 acres of mung beans in 1944. They are well on the way to doubling that acreage in 1945—a tenfold increase in three short years. Planting has also increased in Texas, Kansas, Missouri, Arkansas, California, Illinois, and Georgia.

The people of Asia eat the beans boiled or roasted as well as in sprout form. They grind the beans into flour for such dishes as noodles and gelatin. The Chinese make laundry starch from them.

Mung beans are generally considered less appetizing by Westerners than familiar American beans and peas; but when sprouted they make a welcome addition to raw salads as well as to cooked vegetable dishes. They are rich in vitamins B and C, especially in their raw state. Their progress from an inconspicuous place on America's restaurant menus to domestic prominence on thousands of home dinner tables has been a war phenomenon.

* * * * *

ANCIENT PLYMOUTH, BATTERED BY THE BLITZ, PLANS MODERNIZATION

ACCORDING to plans announced by the Lord Mayor of Plymouth, that southwest English Channel port hopes to be the first British city to emerge ultramodern from the battering of the war's blitz. Destruction wrought by German bombs, second only to that of London, damaged or destroyed one-quarter of the homes.

Plymouth is one of England's most important seaports. Tradition says it was a fishing village in Saxon times. Once known as "the Three Towns," Plymouth, Stonehouse, and Devonport have, since 1914, been one city, with over 210,000 people. Plymouth proper occupies the right bank of the Plym at its mouth. Westward lies Stonehouse, on a peninsula jutting into Plymouth Sound. Beyond

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Each generation of periodic cicadas produces millions of descendants. Under one tree more than 22,000 exit holes were counted. The insects belong to two races—the 17-year and the 13-year cicadas. In general, the range of the 17-year variety extends from the New England states to Georgia, from the Atlantic coast to Kansas and Nebraska. The 13-year cicada appears in some of the southern reaches of this region, but its typical home territory is more southerly, including Louisiana, Mississippi, and Alabama.

Within the two races are about 30 broods, all with the characteristic time cycles which cause them to appear in their home areas with rhythmic regularity. Thus, every year in some district of the cicada range a brood may appear.

The Indians believed the cicada caused contagious diseases. Later Americans have blamed it for damage which was actually done by grasshoppers, and for stings made by digger wasps carrying dead cicadas to feed their young.

The 17-year locust has a younger cousin, an annual cicada sometimes called the harvest fly, or dog-day cicada, which is believed to have a two-year life cycle. There are two broods of this relative so they appear annually. They are slightly larger than their long-lived cousin "locust" and their wings are tinged with green instead of red. But they, too, leave their crisp, discarded shells sticking to tree branches and may be mistaken for the more famous 17-year locust.

Paul Henri Fabre

AFTER A RIP VAN WINKLE LIFE BELOW GROUND, THE CICADA CRAWLS TO THE SURFACE

The cycle of the "17-year locust," correctly called the periodic cicada, begins with the female laying her eggs on tree branches. In a few weeks the eggs have hatched and the tiny grubs fall to the ground. Digging in, they live on sap from tree roots and other food in the ground. Instinct makes them keep their appointment above the surface after exactly 17 years. Emerging, the cicada crawls up the nearest tree, sheds his "shell," spreads his wings, and starts singing his peculiar, grating, metallic song.

NOTE: For additional information about the cicada and various other insects, see "Our Insect Fifth Column," and "Rogues' Gallery of Imported Pests" (ten reproductions in full color of paintings), in the *National Geographic Magazine* for August, 1941; and "Exploring the Wonders of the Insect World," and "Insect Rivals of the Rainbow" (including 24 pages of full-color photographs and reproductions of paintings), July, 1929.

Though the war is over, paper is still scarce. Save it!

Bulletin No. 4, October 15, 1945.

Stonehouse, Devonport rims the Hamoaze, the broad estuary of the Tamar, on its eastern shore. It is England's naval base next in importance to Portsmouth.

Extending along the Sound, from Mill Bay eastward to Sutton Pool (illustration, below) is the Hoe (from the Saxon *hou*, hill, or *hoeg*, high). This rocky ridge is the city's most noteworthy feature and one of the most beautiful promenades in the world. At the eastern corner rises the Citadel, an ancient pentagon fortification which Charles II constructed on the remains of one built by Henry VIII. Inside its walls are modern quarters for a detachment of Royal Artillery, but its guns roar only in royal salutes and other noncombat ceremonies.

On the Hoe is a monument to Sir Francis Drake who sailed from Plymouth for his voyage around the world. For many centuries the port has been the starting point for voyages that were to change the geography—and history—of the world. In the 14th and 15th centuries England's armies passed to and from France through Plymouth. It was from Plymouth that England's Black Prince set forth to the Battle of Poitiers. In the 16th century Drake, Martin Frobisher, Sir Walter Raleigh, and Sir Humphrey Gilbert embarked on their voyages of exploration. There began the running battle in which the English defeated the Spanish Armada. In Elizabeth's reign Plymouth was England's foremost port.

Plymouth has had American associations from the sailing of the first colonists to America in 1607, to the post-World War II visit of President Truman who flew into the city to meet King George, on his way home from the Potsdam Conference in August, 1945, and sailed out of the historic harbor on the U. S. cruiser *Augusta*. The Pilgrim Fathers who landed at New England's Plymouth sailed from old England's old Plymouth in 1620.

Note: Plymouth is shown on the Society's Map of the British Isles.

See also, "Pilgrims Still Stop at Plymouth," in the *National Geographic Magazine* for July, 1938*.

Bulletin No. 5, October 15, 1945.

Maynard Owen Williams

SEA GULLS FLY OVER SUTTON POOL, WHERE ONCE SEA DOGS TOOK SHELTER

Sutton Pool, inlet of Plymouth Sound, preserves the name the town had in Norman days—Sutton (south town). Since the 15th century the city has been known as Plymouth, a simplification of Sutton-super-Plymouth. The ten-million-dollar breakwater, built a century ago, has turned all the Sound's 4,500 acres into a safe anchorage, so this sheltered backwater can relax in its old age and be a haven for peaceful fishing boats.